

Approved For Release 2003/03/10 : CIA-RDP70B00584R000200240001-6

**FAIRCHILD
HILLER** 



FH-227B TWSS

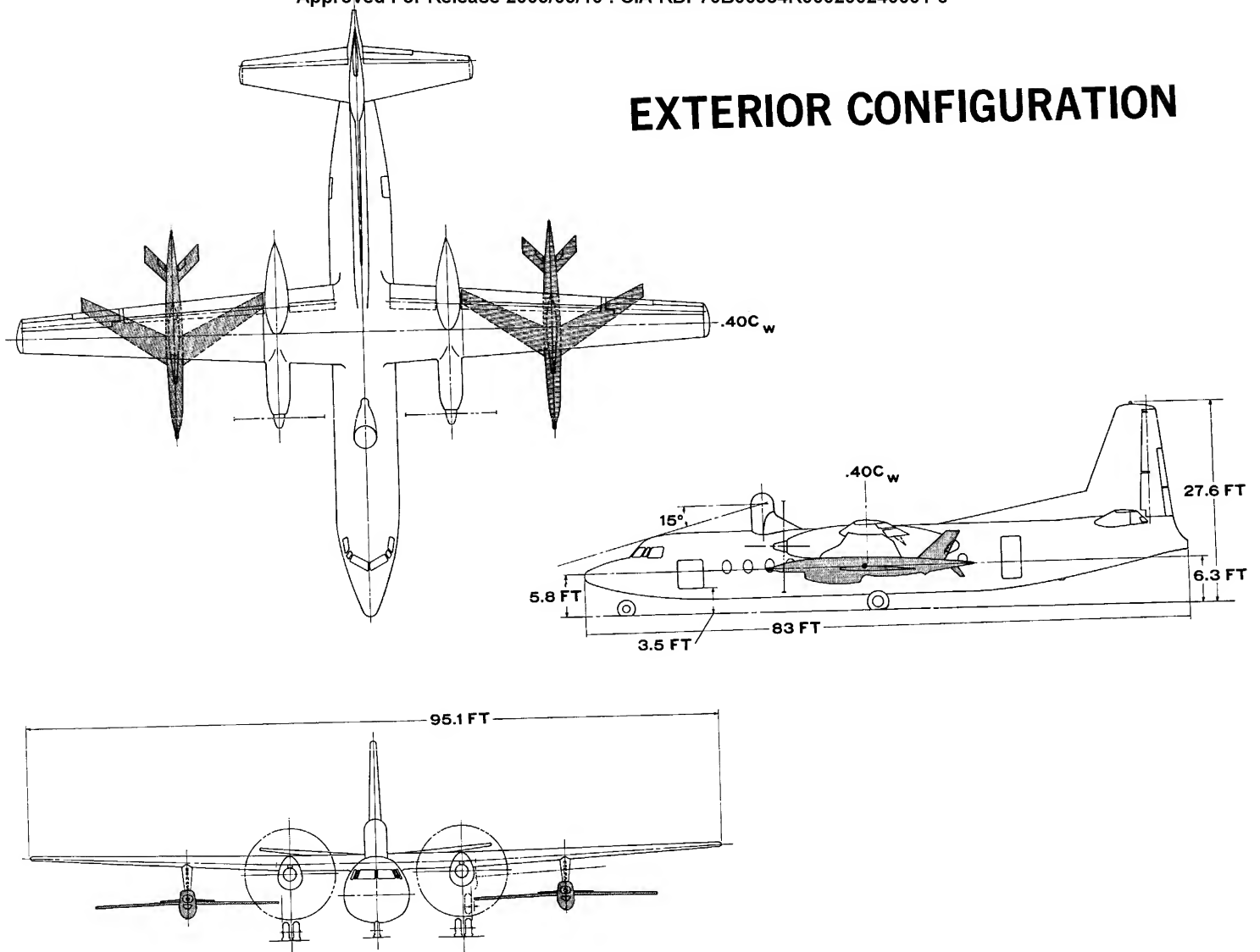
tactical weapon support system

'OFF THE SHELF' AIRCRAFT

- MINOR STRUCTURAL MODIFICATION
- MILITARY NAVIGATION/COMMUNICATION EQUIPMENT
- MCGS
- OPERATORS CONSOLES
- EXTERNAL STORES
- 12 MONTHS

6 TWSS CONFIGURED FH-227B'S

EXTERIOR CONFIGURATION



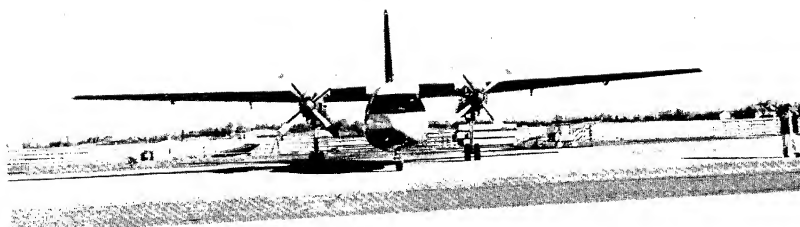
C-130 / C-123 / FH-227 COMPARISON



C-123

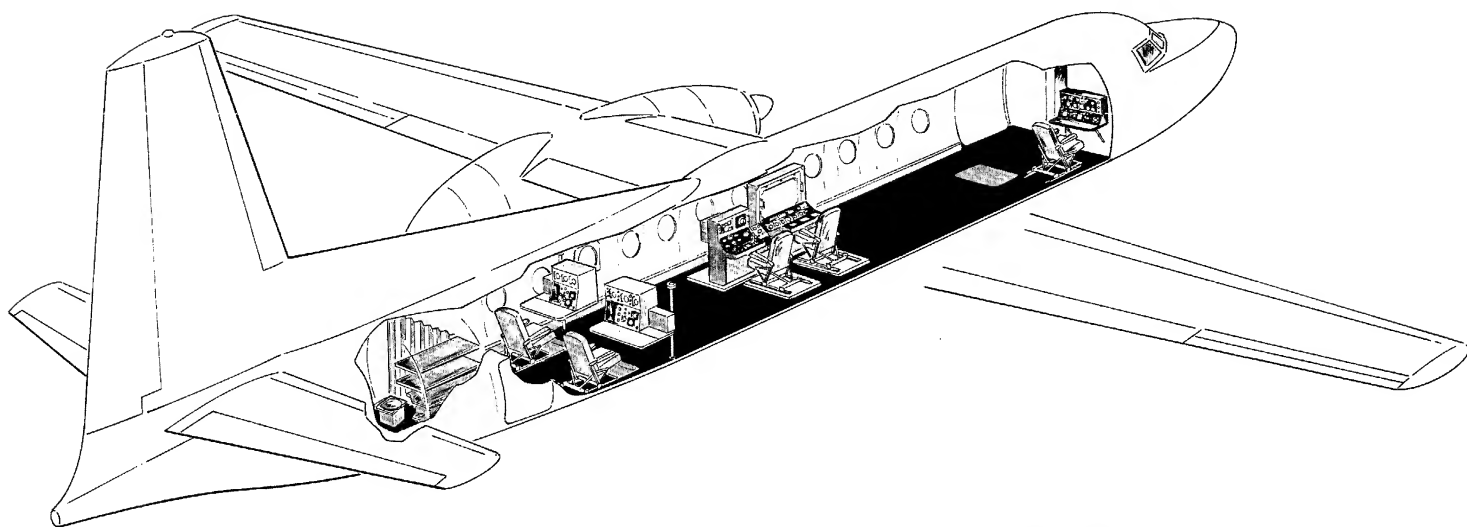


C-130



FH-227

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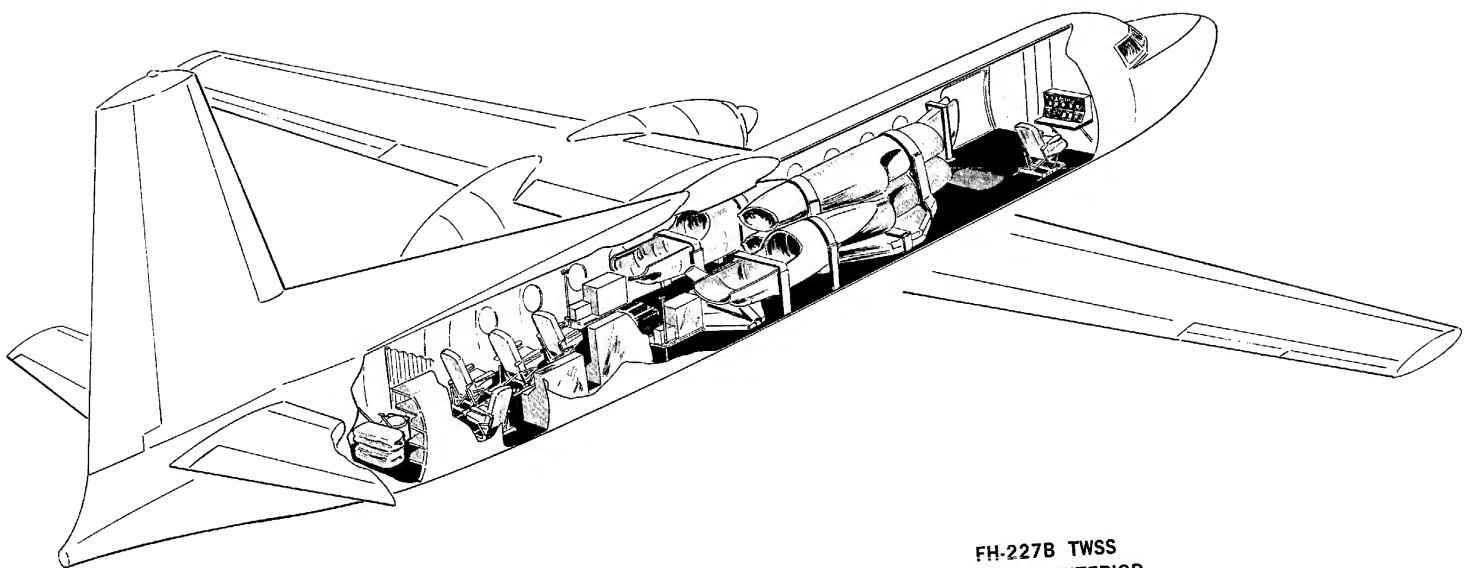


FH-227B TWSS
AIRCRAFT INTERIOR

BASIC MISSION

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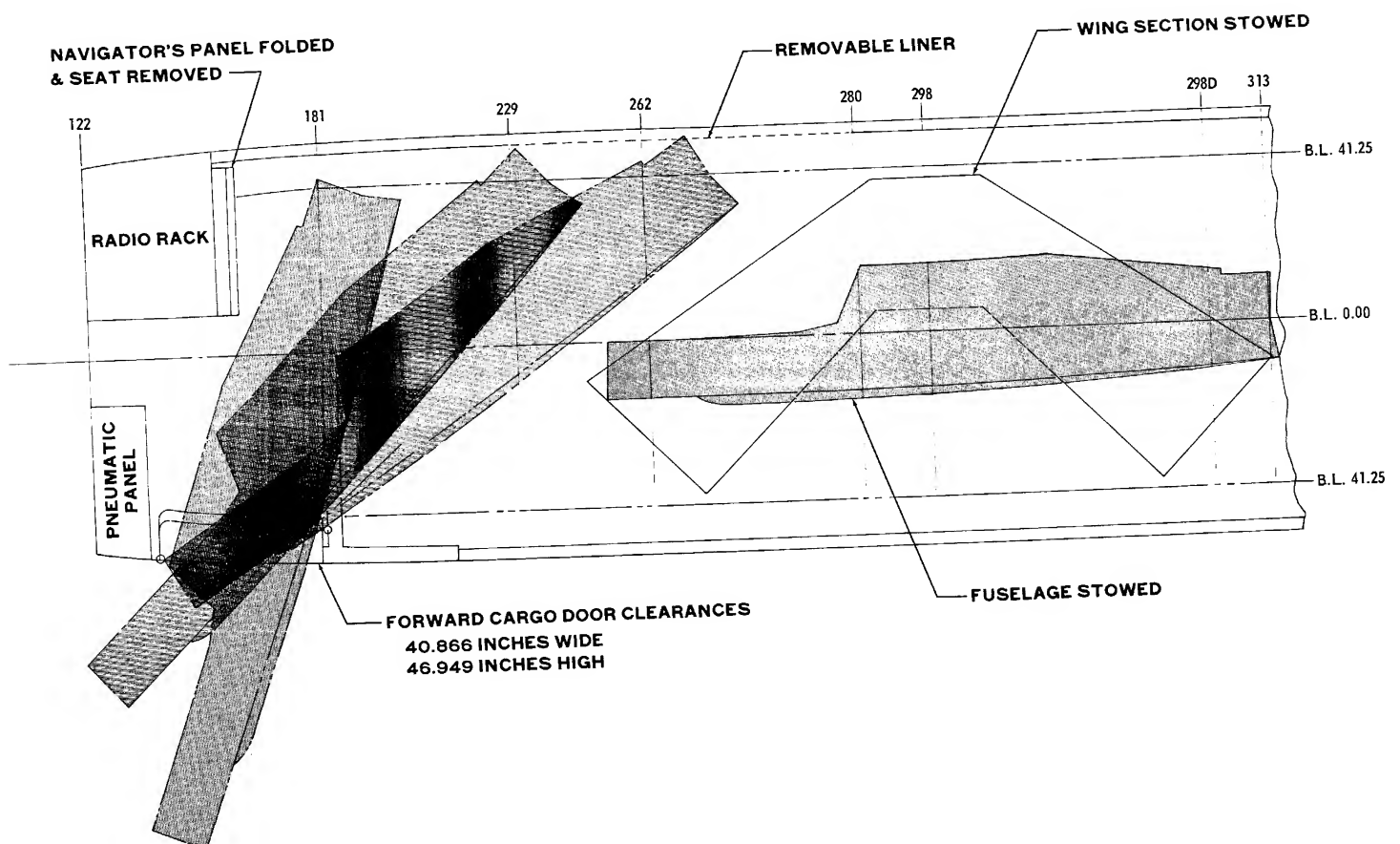
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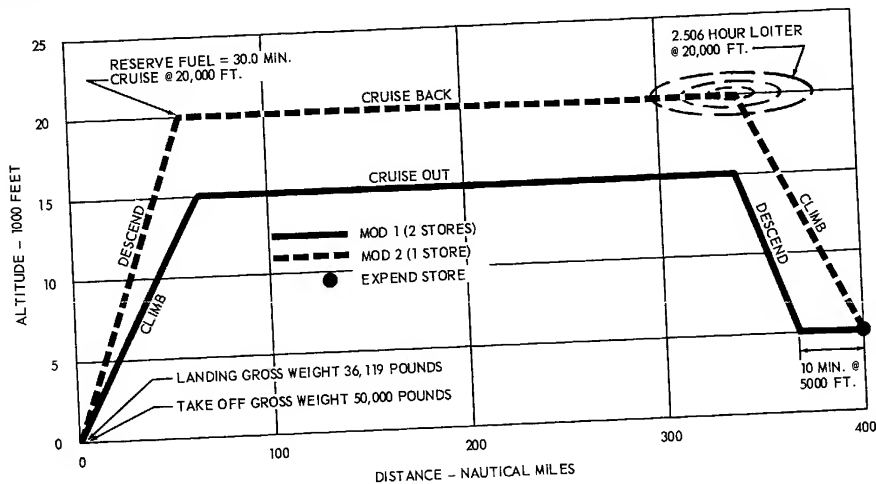
FH-227B TWSS
AIRCRAFT INTERIOR
DEPLOYMENT MISSION

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EXTERNAL STORE LOADING CLEARANCES DEPLOYMENT MISSION

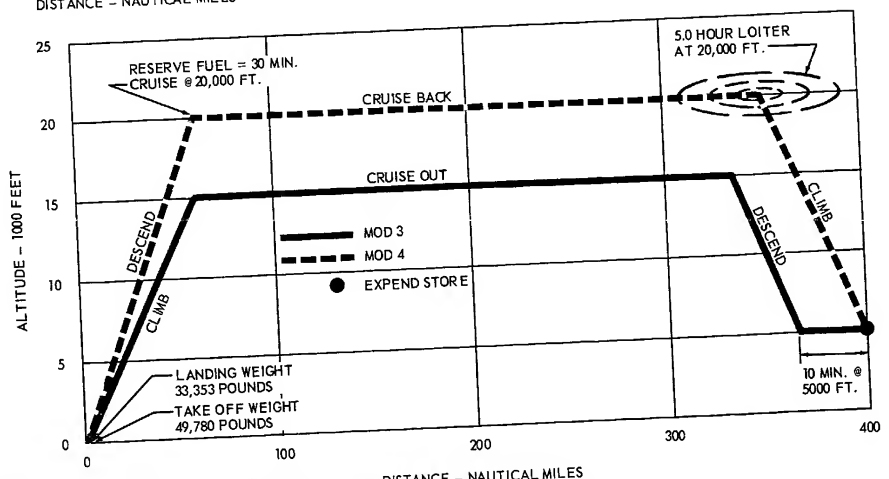


BASIC MISSION PROFILE

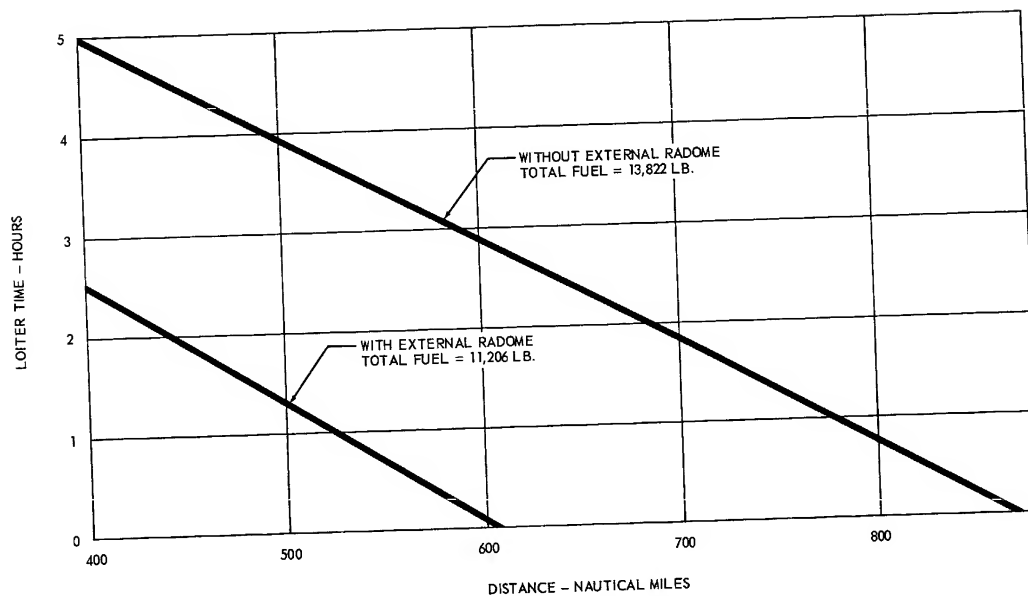


WITH MCGS

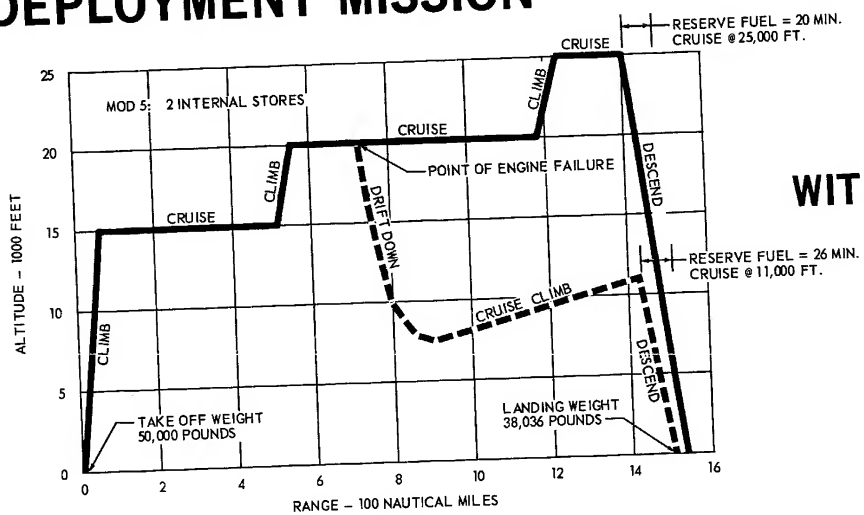
WITHOUT
MCGS



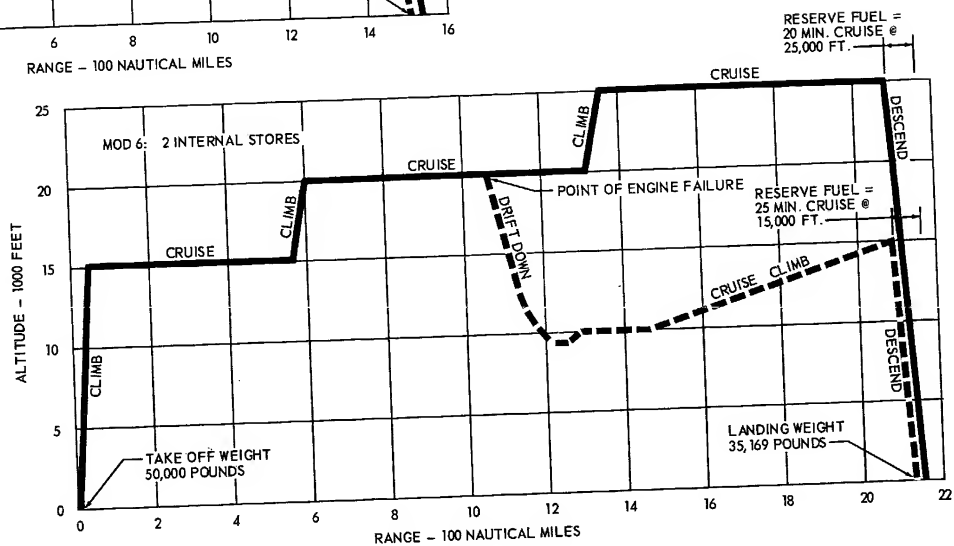
MISSION RADIUS VS LOITER TIME



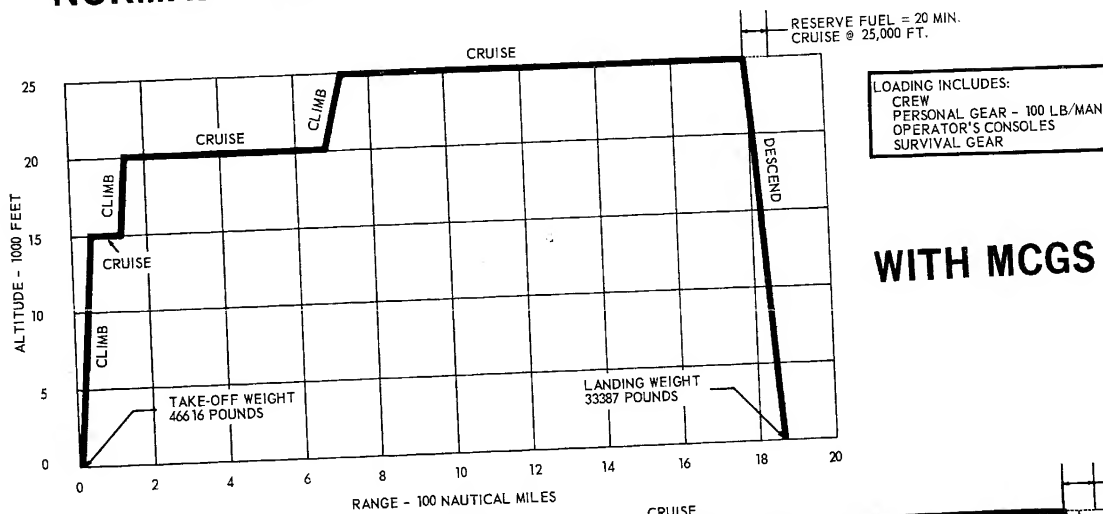
DEPLOYMENT MISSION



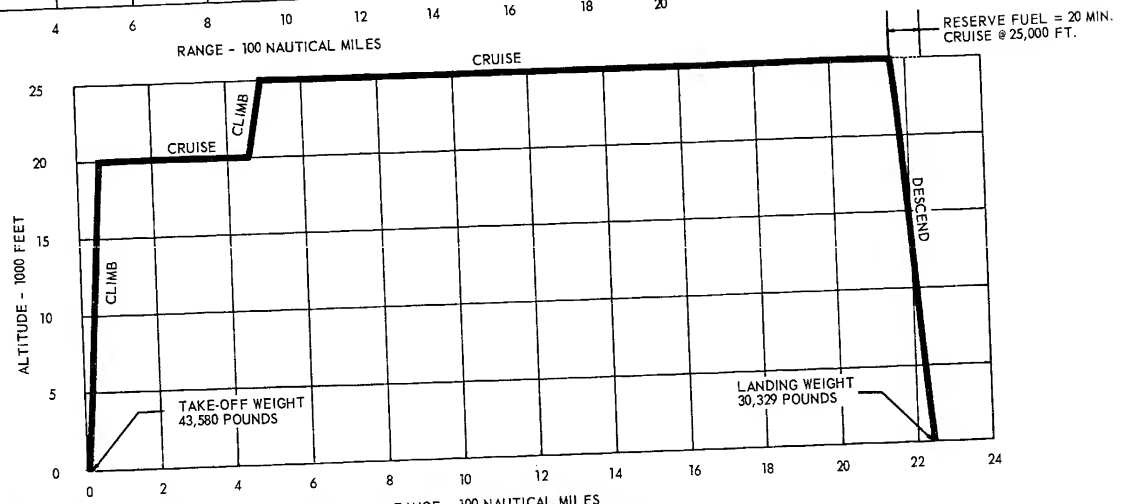
WITHOUT
MCGS



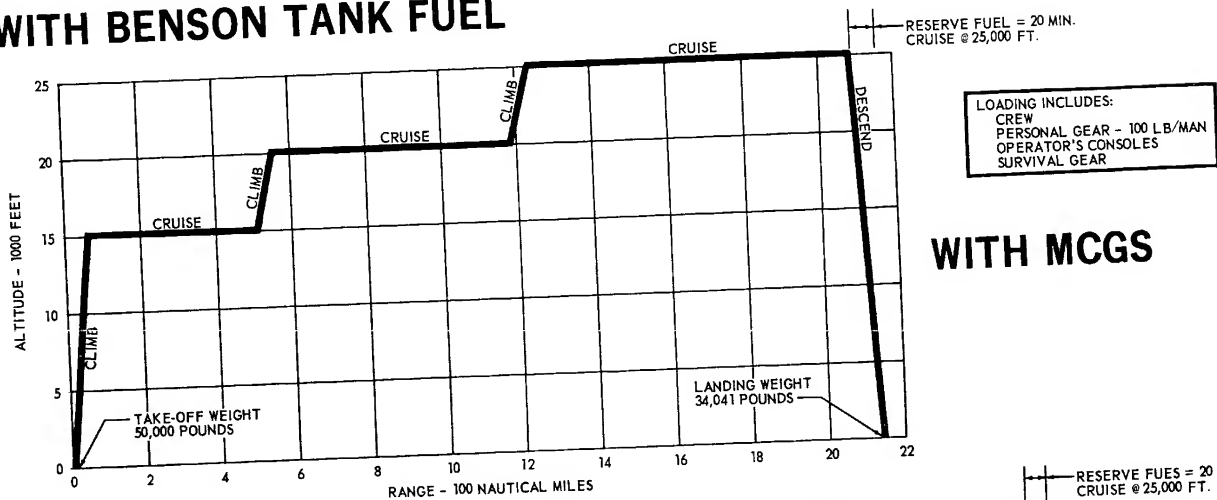
DEPLOYMENT MISSION **NO STORES (INTERNAL OR EXTERNAL)** **NORMAL FUEL CAPACITY**



**WITHOUT
MCGS**

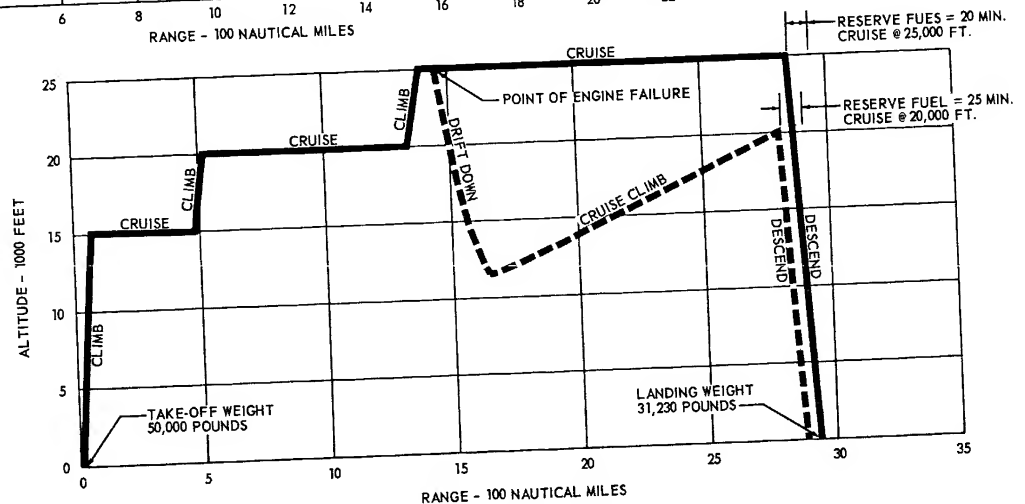


DEPLOYMENT MISSION **(NO STORES INTERNAL OR EXTERNAL)** **WITH BENSON TANK FUEL**

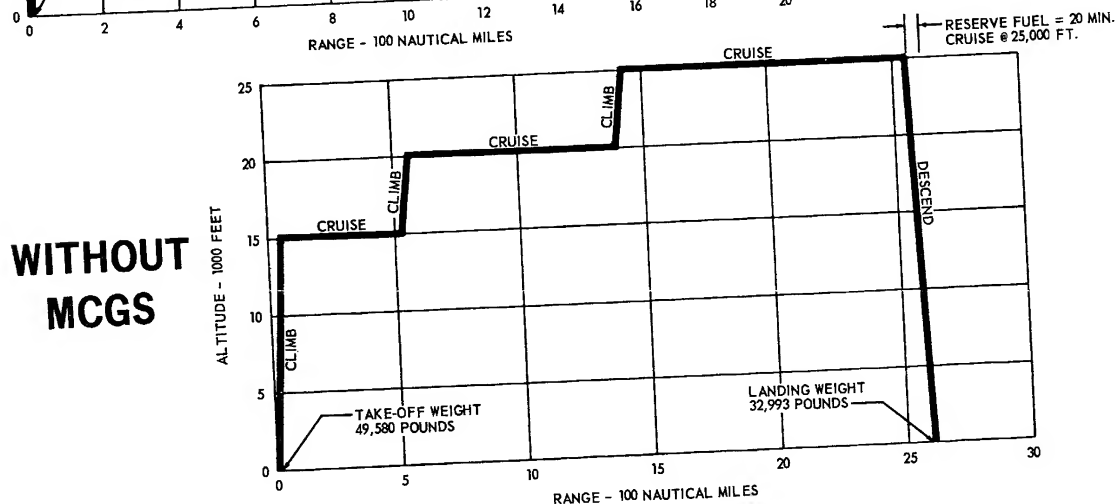
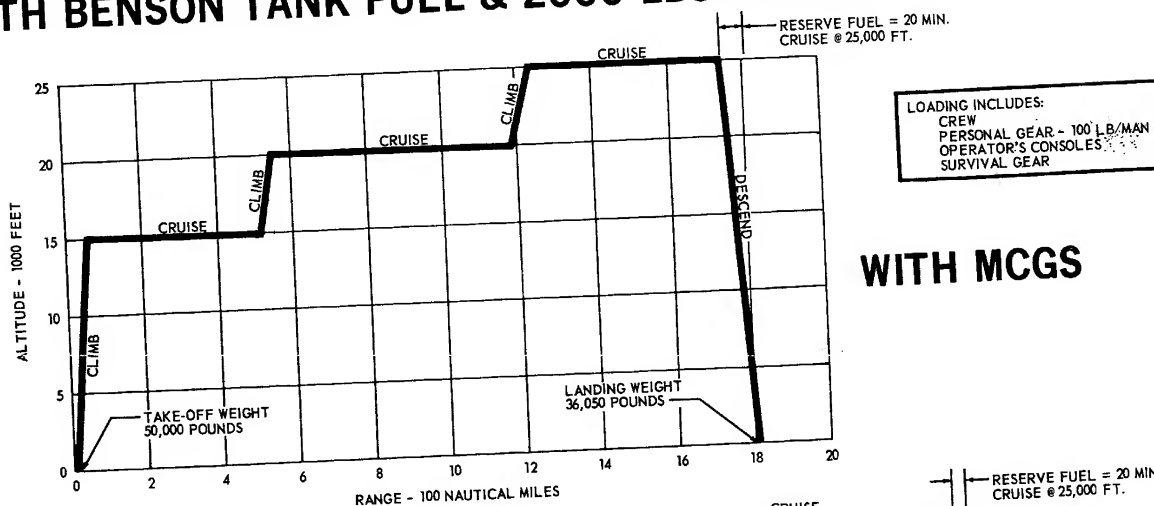


WITH MCGS

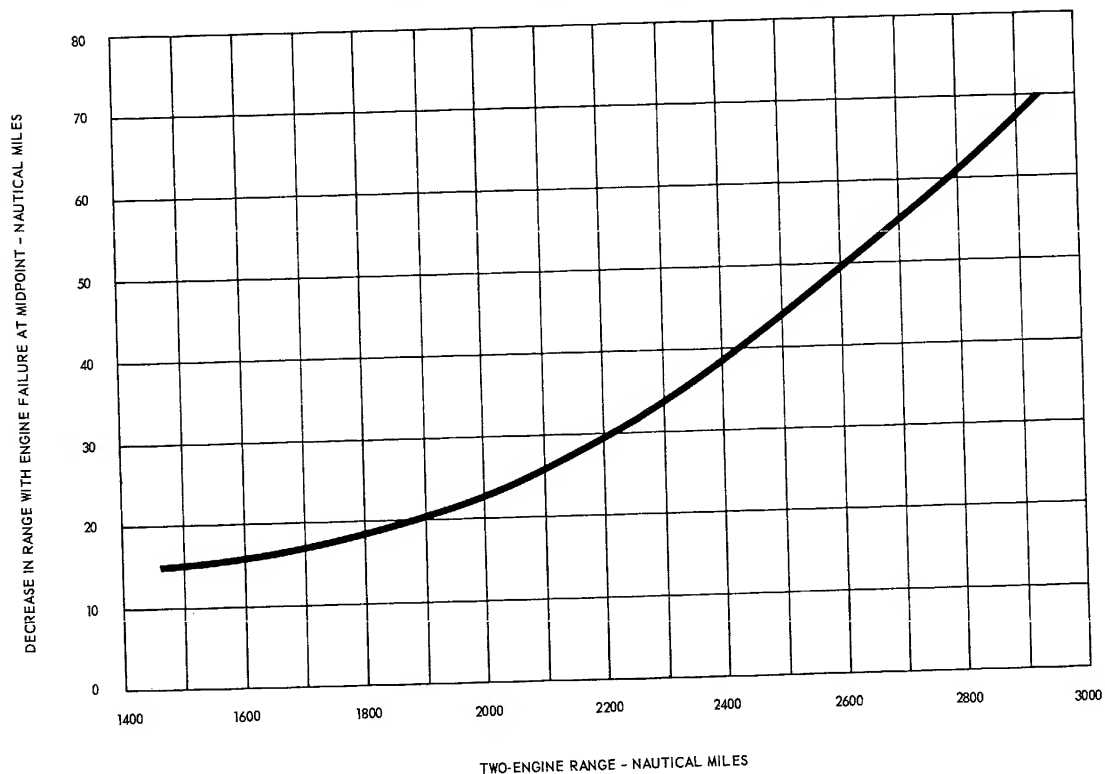
WITHOUT MCGS



DEPLOYMENT MISSION **(NO STORES INTERNAL OR EXTERNAL)** **WITH BENSON TANK FUEL & 2000 LBS CARGO**



DECREASE IN RANGE WITH LOSS OF ENGINE AT MIDPOINT VERSUS TWO-ENGINE RANGE DEPLOYMENT MISSION



PERFORMANCE

	WITH MCGS		WITHOUT MCGS	
TAKE-OFF				
FLAP SETTING	0	16.5°	0	16.5°
MAX TAKE OFF WEIGHT - LB	*50,000	*47,150	50,000	50,000
GROUND ROLL - FT	3670	2270	3510	2570
TOTAL OVER 50 FT - FT	5910	3710	5690	4180
RATE-OF-CLIMB - FT/MIN				
2 ENGINES, T.O. POWER - S.L.	1260	1330	1365	1290
1 ENGINE, T.O. POWER - S.L.	100	100	188	110
SERVICE CEILING - FT				
2 ENGINES, CRUISE, $\zeta_f = 0$	18,400	20,000	20,600	20,600
LANDING				
FLAP SETTING	40°		40°	
LANDING WEIGHT - LB	36,000	45,000	33,500	45,000
TOTAL DISTANCE FROM 50 FT - FT	1945	2310	1840	2310

* LIMITED BY 100 FT/MIN RATE-OF-CLIMB

MAXIMUM GROSS WEIGHT

DESIGN TAKE-OFF WEIGHT 45,500 LBS

MAXIMUM TAKE-OFF WEIGHT 50,000 LBS

RESTRICTIONS

TAXI TURNS - MAX SIDE FORCE ON AIRCRAFT CG=0.45g

TAXI BRAKING LIMITED TO DECELERATION RATE = 23.5 FT/SEC²

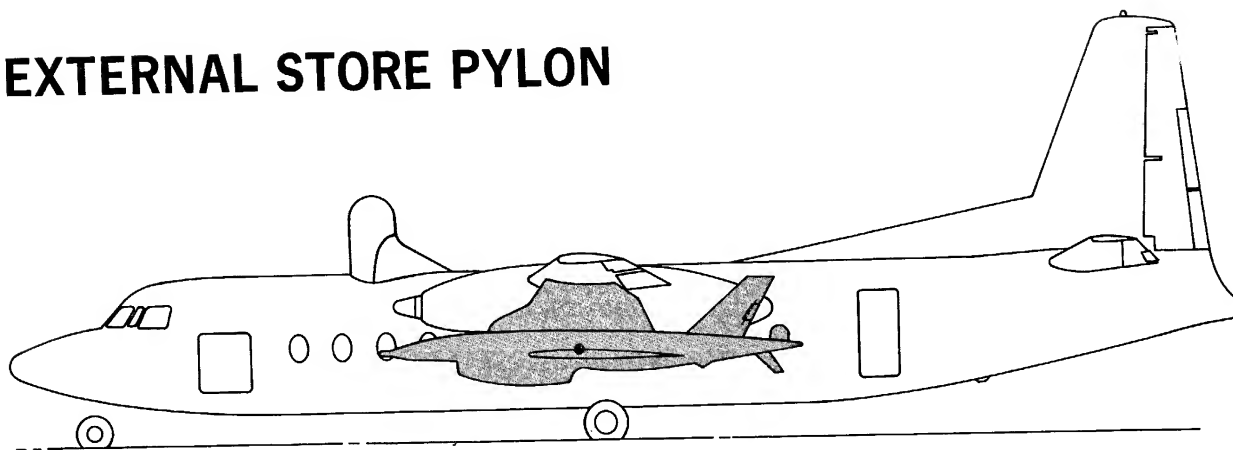
TAXI SPEED LIMITED TO 10 KNOTS MAXIMUM

RATE-OF-SINK REDUCED TO 6 FT/SEC

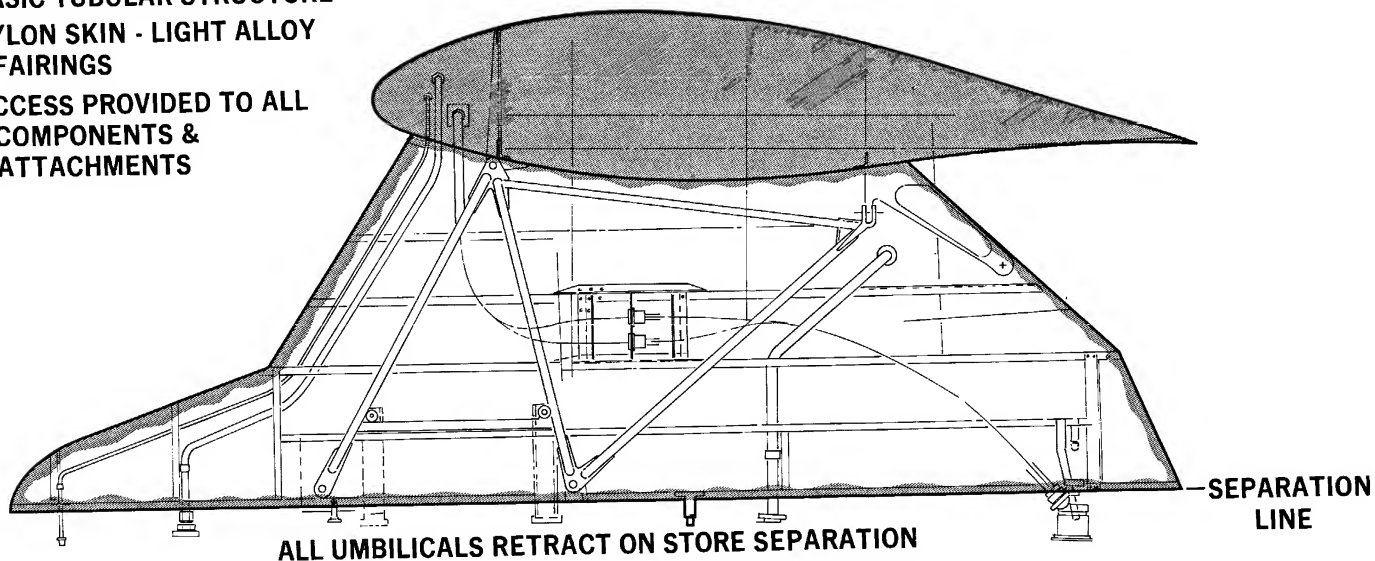
WEIGHT SUMMARY

	BASIC MISSION WITH MCGS (POUNDS)	BASIC MISSION WITHOUT MCGS (POUNDS)	DEPLOYMENT MISSION WITH MCGS (POUNDS)	DEPLOYMENT MISSION WITHOUT MCGS (POUNDS)
MANUFACTURER'S WEIGHT EMPTY	22,986	22,986	22,986	22,986
STRUCTURAL CHANGES	1,779	1,556	1,779	1,556
INTERIOR	783	783	783	783
ELECTRONICS - CONVENTIONAL	1,444	1,444	1,444	1,444
EXTERNAL PAINT	55	55	55	55
REVISED WEIGHT EMPTY	27,047	26,769	27,047	26,769
CREW & MISSION EQUIPMENT	11,597	9,039	10,397	7,839
BASIC OPERATING WEIGHT	38,644	35,808	37,444	34,608
FUEL & WATER/METHANOL	11,356	13,972	12,556	15,392
TAKE-OFF GROSS WEIGHT	50,000	49,780	50,000	50,000

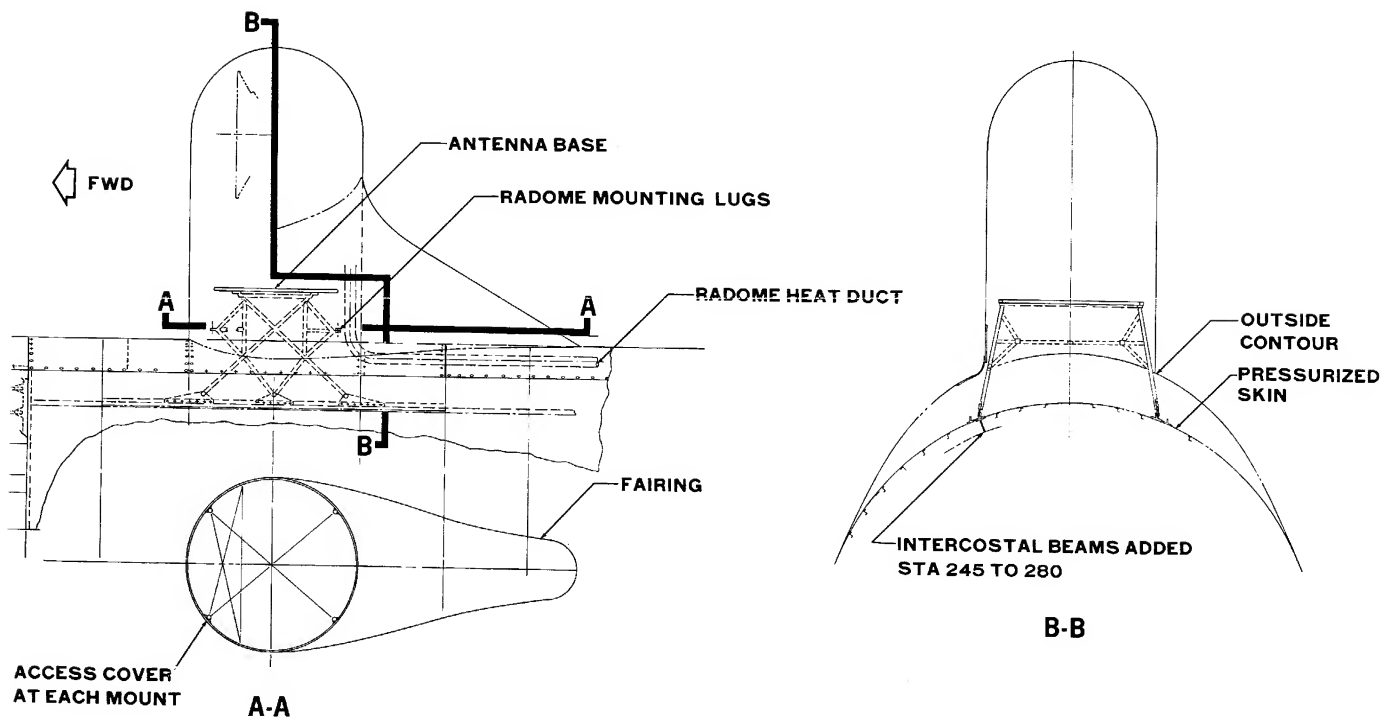
EXTERNAL STORE PYLON



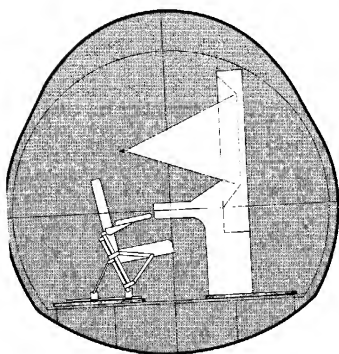
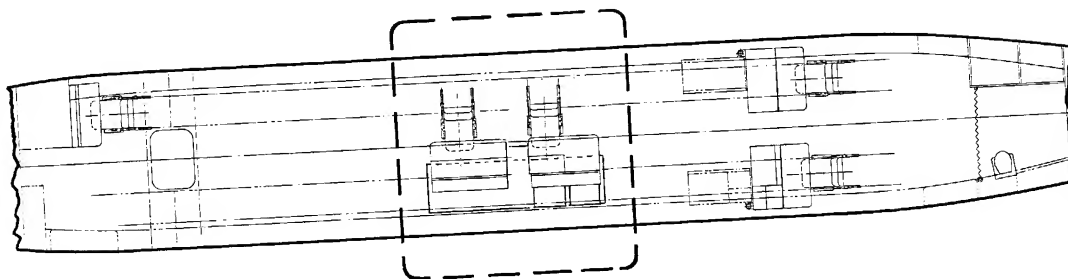
BASIC TUBULAR STRUCTURE
PYLON SKIN - LIGHT ALLOY
FAIRINGS
ACCESS PROVIDED TO ALL
COMPONENTS &
ATTACHMENTS



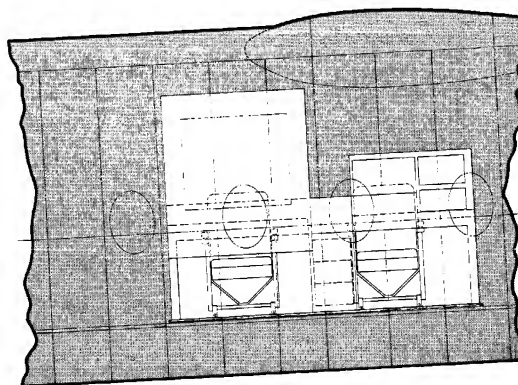
MCGS RADOME INSTALLATION



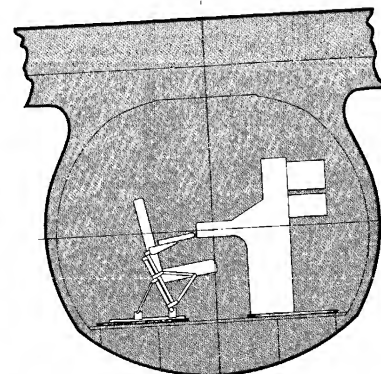
MCGS STATIONS



CROSS SECTION

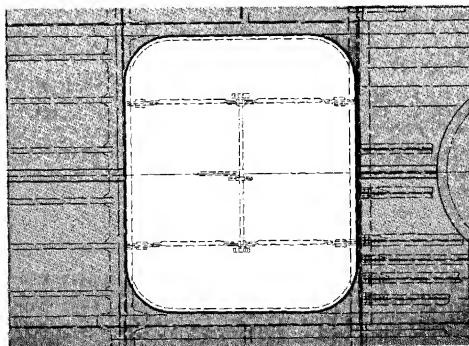
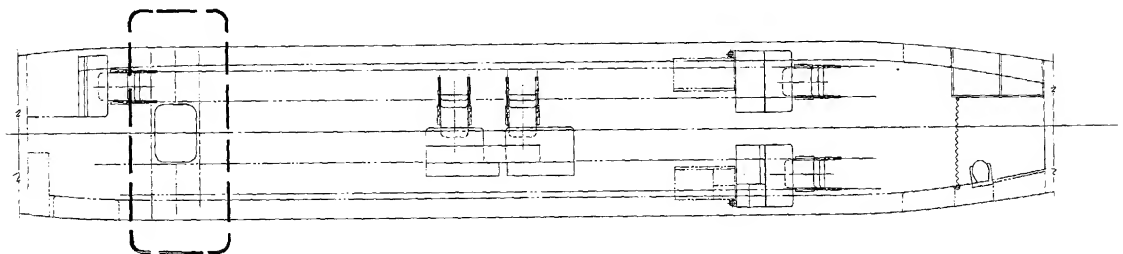


SIDE VIEW

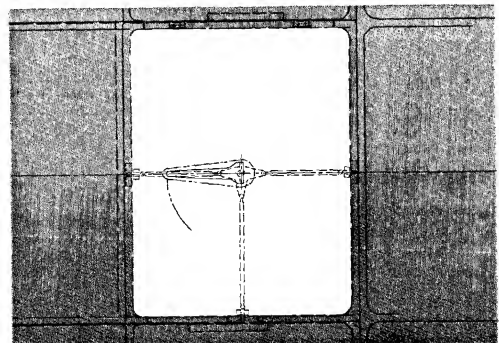


CROSS SECTION

ESCAPE HATCH INSTALLATION

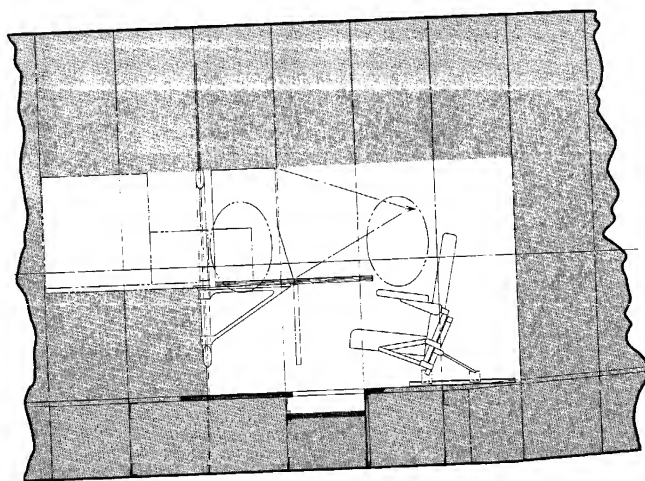
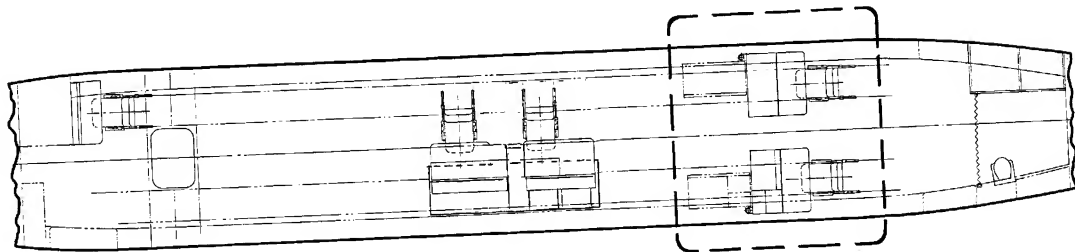


BOTTOM VIEW

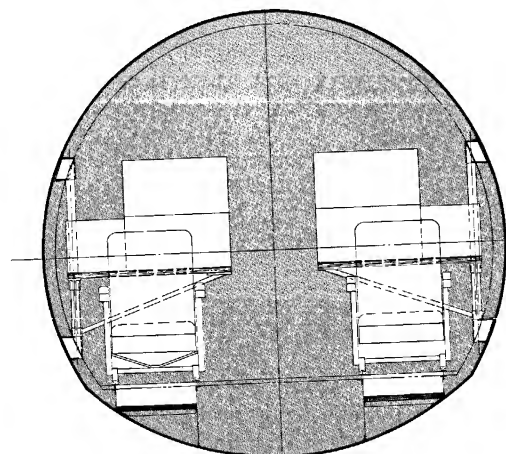


TOP VIEW

OPERATORS' CONSOLES

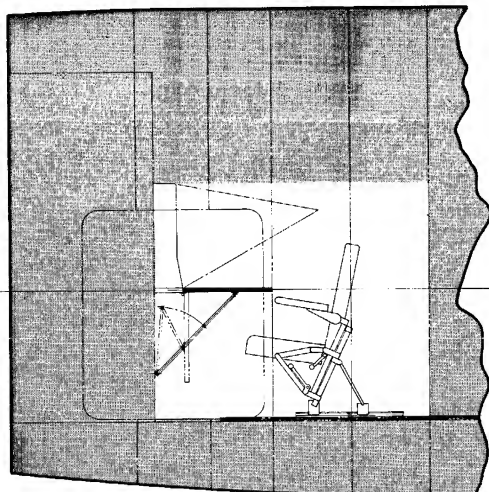
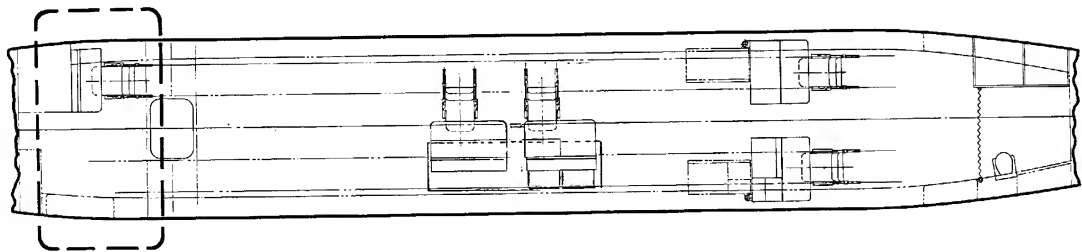


SIDE VIEW

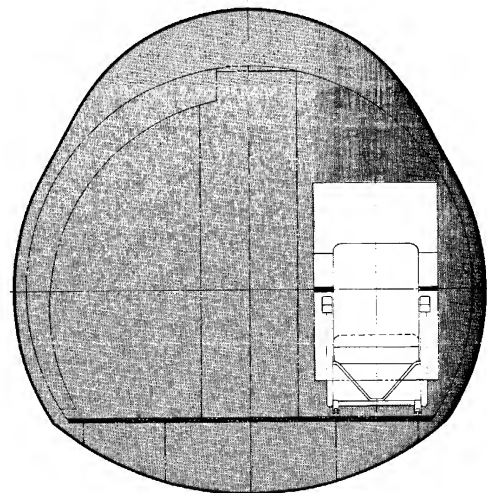


CROSS SECTION
(LOOKING FORWARD)

NAVIGATOR'S STATION

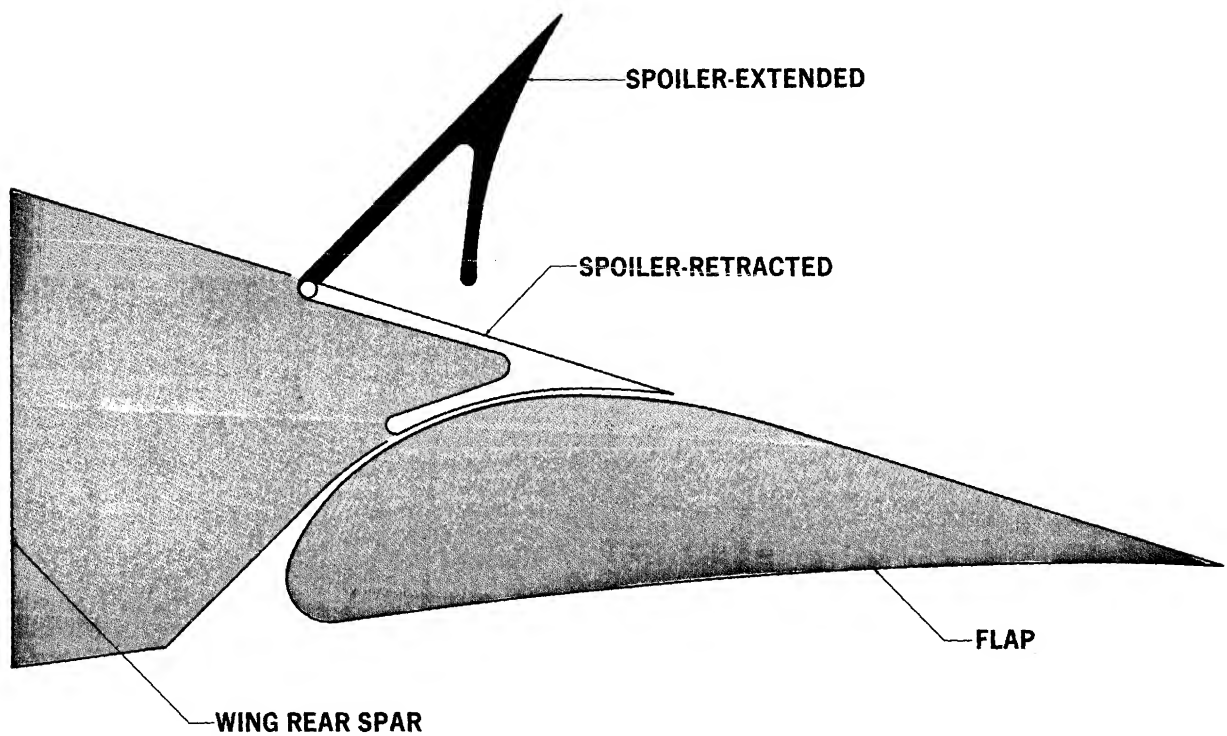


SIDE VIEW

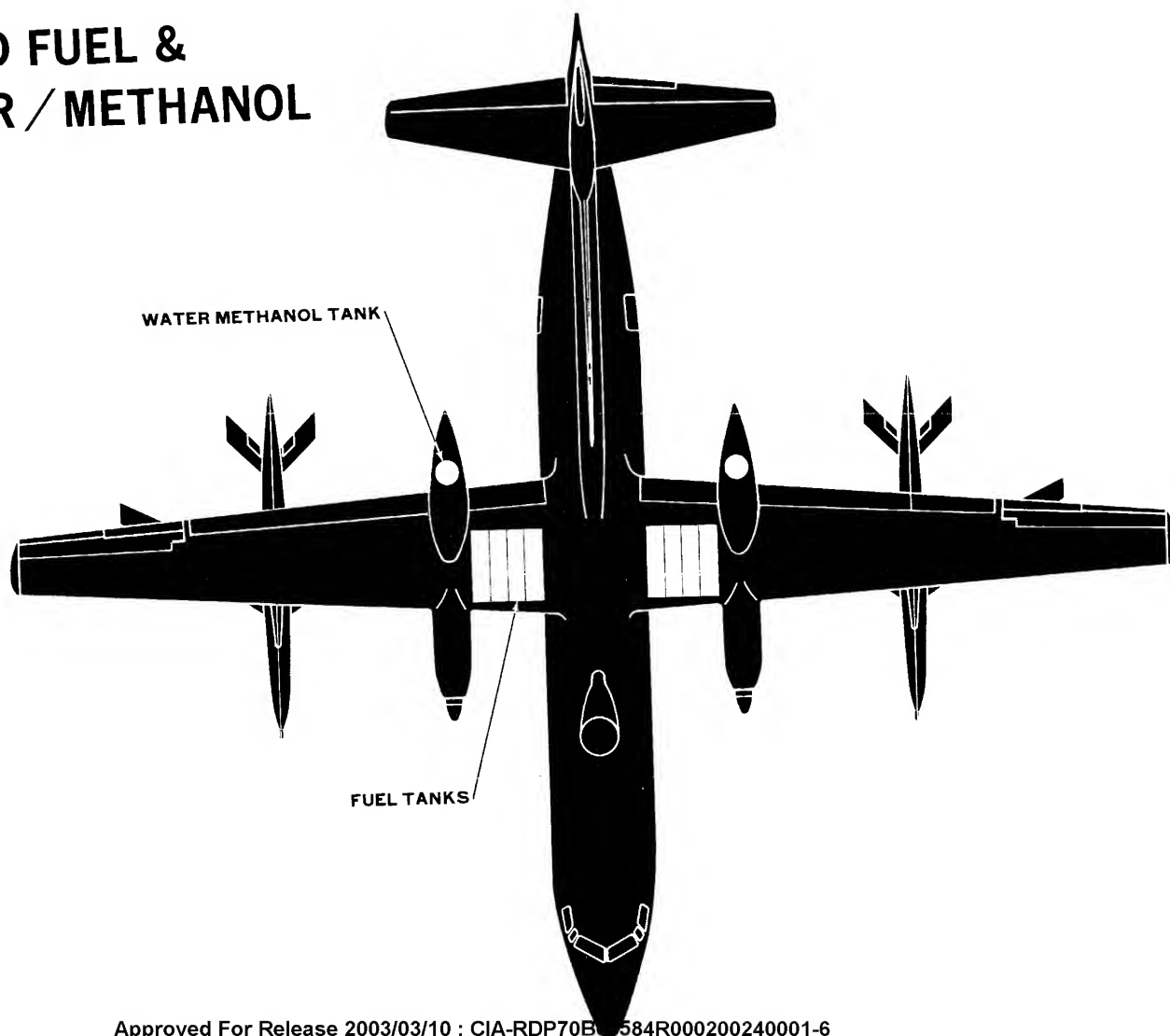


**CROSS SECTION
(LOOKING FORWARD)**

SPOILER SECTION BETWEEN WING STA. 300.00 & 393.00



INBOARD FUEL & WATER / METHANOL



COMMUNICATION / NAVIGATION EQUIPMENT

* AIC-18	INTERCREW COMMUNICATION	* ARN 67	GLIDE PATH RECEIVER FOR ILS
* ARC 102	HF VOICE AND DATA TRANSMITTER/RECEIVER (TWO)	* APN 70	LORAN NAVIGATION AID (LORAN A AND C)
* ARC 101	VHF VOICE COMMUNICATIONS	* APN 147V	DOPPLER NAVIGATION
* ARC 54	VHF FM VOICE COMMUNICATIONS	* ASN 35	DOPPLER COMPUTER
* ARC 34C	UHF VOICE COMMUNICATIONS	* N-1	GYRO-MAGNETIC COMPASS SYSTEM
* ARN 6	RADIO COMPASS FOR HOMING, BEARING AND RANGE FINDING	* MA-1	FLIGHT DIRECTOR SYSTEM
* ARN 14C	VHF NAVIGATION RADIO AID	* 51Z3	MARKER BEACON FOR ILS
* ARN 21	UHF NAVIGATION AID	• PB 60	AUTOMATIC PILOT SYSTEM
* ARA 25	UHF DIRECTION FINDER	• RDR1E	WEATHER RADAR
* APX 25	IFF AIRCRAFT RECOGNITION		
* Government furnished equipment.		• PB60 Autopilot is on the T-39, C-141 and Caribou aircraft. RDR-1 Radar is on the C-140. Both systems have been installed on the FH-227.	
* Government furnished equipment common to C-130E.			

SYSTEMS / EQUIPMENT

FUEL TOP-OFF SYSTEM (C-130 SYSTEM COMPONENTS)

MCGS RADOME ANTI-ICING

OXYGEN SYSTEM

PITOT STATIC SYSTEM

INTERIOR

FUEL DUMP & NITROGEN PURGE SYSTEM (OPTIONAL)

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FLIGHT TEST PROGRAM

CONFIRM CONCEPT FEASIBILITY

PRELIMINARY TESTS

FLIGHT HANDLING QUALITIES

ASYMMETRICAL DROP TESTS

PERFORMANCE

SYSTEMS

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MISSION FLEXIBILITY

- **UPRATED ENGINES**

20% INCREASE IN WET TAKE -OFF POWER

10% INCREASE IN MAXIMUM CONTINUOUS POWER

- **SHORTER SPAN / HIGHER WEIGHT STORES**

- **QUICK-CHANGE INTERIOR**

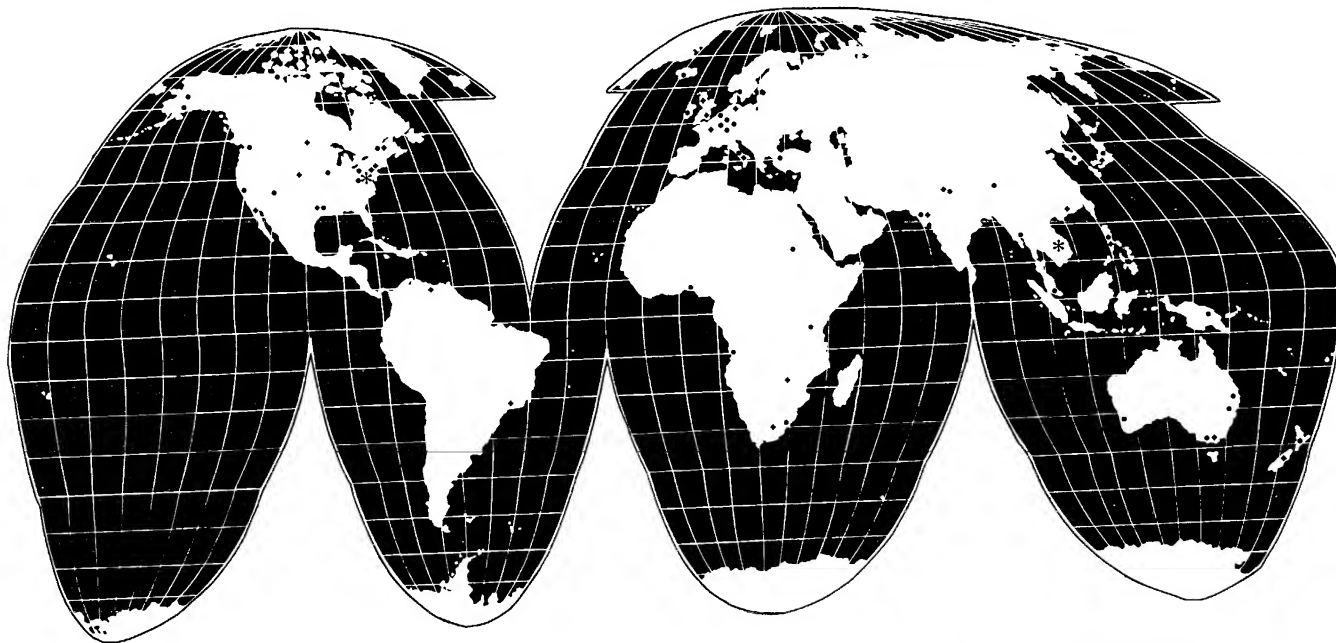
- **LARGE FORWARD CARGO DOOR**

HEIGHT: 70 INCHES

WIDTH: 91 INCHES

WORLD-WIDE MAINTENANCE & SUPPORT

400 AIRCRAFT IN SERVICE AND ON ORDER



* FAIRCHILD HILLER MAINTENANCE BASE

● AIRCRAFT MAINTENANCE BASE

◆ DART MAINTENANCE BASE

GOVERNMENT FURNISHED EQUIPMENT

ELECTRONICS

AN/AIC-18	INTERPHONE
AN/ARC-102	HF COMM (2)
AN/ARC-101	VHF COMM
AN/ARC-54	VHF FM COMM
AN/ARC-34C	UHF COMM
AN/ARN-6	RADIO COMPASS
AN/ARN-14C	VHF NAV
AN/ARN-21	TACAN
AN/ARA-25	UHF DF
AN/APX-25	IFF
AN/ARN-67	GLIDE SLOPE
AN/APN-70	LORAN
AN/APN-147V	DOPP NAV
AN/ASN-35	DOPP COMP

N-1	COMPASS
MA-1	FLIGHT DIR
51Z3	MARKER

MISSION SUPPORT EQUIPMENT

S-4	BOMB RACK (2)
	CHECK-OUT CONSOLE (2)
AN/APW-23	MCGS (As modified for use on the FH-227 airplane)

SURVIVAL GEAR

AN/MA8	PYRO PISTOL
A-3B	LIFE RAFTS (2)
CRT-3	EMERG RADIO
	EMERG RATIONS (64)
	ABANDONSHIP KIT
	LIFE JACKETS (8)

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PROGRAM COSTS

6 FH-227'S @ \$1,295,000	\$7,770,000
RECURRING MOD COSTS @ \$313,396	\$1,880,377
NON-RECURRING MOD COSTS	\$1,874,130
SPARES SUPPORT (1 YEAR)	<u>\$ 756,355</u>
TOTAL PROGRAM COST	\$12,280,862